

Claim Amendments

1. (Presently amended) A method for treating sickle cell disease ~~in humans~~ comprising administering to a person in need thereof a therapeutically effective dosage of ferritin-H. ~~exposing a globin producing cell to a ferritin H such that the cell absorbs the ferritin H.~~
- 2-10. (Canceled)
11. (Withdrawn) A method for treating sickle cell disease comprising:
suppressing the expression of adult β globin genes in globin-producing cells by
inducing expression of an indogenous ferritin-H gene of the globin-producing cell.
- 12-18. (Canceled)
19. (Presently amended) The method of claim 1, wherein the ferritin-H is absorbed by a globin-producing cell and binds to the promoter region of a β globin gene.
- 20-21. (Canceled)
22. (Presently amended) A pharmaceutical composition for treating sickle cell disease comprising a therapeutically effective amount of ferritin-H capable of binding to the promoter of a human β globin gene at -148 to -153 bp from the transcription start site.
23. (Canceled)

24. (Presently amended) The method of claim 1, wherein the ~~globin-producing cell is exposed to ferritin-H in vivo by injecting ferritin-H is injected in vivo~~ into bone marrow.

25. (Presently amended) The method of claim 1 wherein the ~~globin-producing cell is exposed to ferritin-H is injected into a globin-producing cell ex vivo~~, which globin-producing cell is subsequently transplanted into bone.

26. (Withdrawn) A method of treating sickle cell disease comprising transforming globin producing cells *ex vivo* with a vector comprising a gene sequence encoding ferritin-H or a conservatively modified variant thereof and subsequently transplanting the cells into bone marrow.

27. (Presently amended) The method of claim 1, wherein the ferritin-H is absorbed by globin-producing cell is an erythroid precursor cell.

28. (new) A method for treating sickle cell disease in a person comprising administering to said person a therapeutically effective dosage of a ferritin-H derivative capable of binding to the promoter of a human β globin gene at -148 to -153 bp from the transcription start site.